

REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

I. CLAIM STATUS AND AMENDMENTS

Claims 1-27, 29 and 33-36 were pending in this application when last examined.

Claims 1, 2 and 35 were examined on the merits and stand rejected.

Claims 3-27, 29, 33, 34 and 36-46 were withdrawn as non-elected subject matter.

Applicants reserve the right to file a Continuation or Divisional Application on any non-elected subject matter.

Claims 1, 2 and 35 are amended.

Claim 1 is amended to recite “and having an activity to bind to a human integrin selected from the group consisting of $\alpha v\beta 3$, $\alpha v\beta 5$ and $\alpha 9\beta 1$, which integrin is capable of binding to full length human DANCE polypeptide”. Support for “human integrin” can be found as follows:

Nakamura et al. (Nature, Vol. 415, pp. 171-175, 2002; incorporated into the specification by reference (Attachment A)) describe that cell attachment assays using CHO cells and CHO lines stably transfected with various integrin chains were performed as described in references 17 and 23 (Journal of Biological Chemistry, Vol. 275, No. 45, pp. 34922-34930, 2000 (Attachment B); and Journal of Biological Chemistry, Vol. 273, No. 13, pp. 7345-7350, 1998 (Attachment C)). These references disclose the cell attachment assay using CHO cell lines expressing various human integrins (see reference 23, page 7346, left column, lines 26-27). In addition, functional blocking antibodies against human integrins ($\alpha 9$, $\alpha v\beta 3$ and $\alpha v\beta 5$) are used are used for cell attachment assay in Nakamura et al. (see page 174, Fig. 5 and page 175, paragraph “Cell adhesion assays”).

Further, support for “capable of binding to full length human DANCE polypeptide” can be found on page 63, lines 20-23 in the specification as filed.

Claims 2 and 35 are amended to clarify the claimed invention.

No new matter has been added.

II. OBJECTION TO THE ABSTRACT

On page 2 of the Office Action, the abstract was objected to for the noted reasons. The abstract has been amended to overcome the Examiner's concerns. Thus, this objection is moot.

III. INDEFINITENESS REJECTION

On pages 2-3 of the Office Action, claims 2 and 35 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite for the noted reasons.

In accordance with the suggestion of the Examiner, the phrase "the polypeptide of claim 1" has been amended to recite "the isolated polypeptide of claim 1" without prejudice or disclaimer thereto. Thus, this rejection is moot.

IV. ENABLEMENT/WRITTEN DESCRIPTION REJECTIONS

On pages 3-4 of the Office Action, claims 1, 2 and 35 were rejected under 35 U.S.C. § 112, first paragraph, on the basis that the specification lacks enablement for any polypeptide having at least 90% identity to SEQ ID NO: 6, wherein the polypeptide binds to any protein having $\alpha\beta3$, $\alpha\beta5$ and $\alpha9\beta1$ integrin activity. Further, on pages 4-5, claims 1, 2 and 35 were rejected under 35 U.S.C. § 112, first paragraph, on the basis that the specification lacks written description support for the genus of any polypeptide having at least 90% identity to SEQ ID NO: 6, wherein the polypeptide binds to any protein having $\alpha\beta3$, $\alpha\beta5$ and $\alpha9\beta1$ integrin activity.

It is noted that the Examiner contends that enablement/written description support does not exist for any polypeptide having at least 90% identity to SEQ ID NO: 6, wherein the polypeptide binds to any protein having $\alpha\beta3$, $\alpha\beta5$ and $\alpha9\beta1$ integrin activity. Without acquiescence to the correctness of this rejection, Applicants have amended claim 1, the only independent claim under Examination, to require that the isolated polypeptide has an activity to bind to a human integrin selected from the group consisting of $\alpha\beta3$, $\alpha\beta5$ and $\alpha9\beta1$, which integrin is capable of binding to full length human DANCE polypeptide.

Thus, Applicants note that the Examples in the specification and Nakamura et al. (Nature, Vol. 415, pp. 171-175, 2002) fully support and enable the limited genus of amended claim 1.

Thus, for above noted reasons, these rejections are untenable and should be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

Respectfully submitted,

Tomoyuki NAKAMURA et al.

By: /William R. Schmidt, II/
William R. Schmidt, II
Registration No. 58,327
Attorney for Applicants

Digitally signed by /William R. Schmidt, II/
DN: cn=/William R. Schmidt, II/, o=WLP,
ou, email=bschmidt@venderoth.com,
c=US
Date: 2009.06.11 14:31:42 -0400

WRS/vah
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
June 11, 2009